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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,309	03/29/2004	Jonathan Castle	022048-000200US	3634
20350	7590	12/28/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/813,309

Applicant(s)

CASTLE, JONATHAN

Examiner

Travis R. Hunnings

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12-16 and 18-24 is/are rejected.
- 7) ☒ Claim(s) 5, 11, 17 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because the boxes in figure 7 should be labeled to make them easier to read and understand more quickly. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 7-9 rejected under 35 U.S.C. 102(b) as being anticipated by Hirschi et al (Hirschi; US Patent 4,470,015).

Regarding claim 1, Hirschi discloses *Metal Detector System With Undesirable Target And Mineralized Ground Discrimination* that has the following claimed limitations:

The claimed power source would be inherent to a metal detector device;

The claimed at least one transmitter circuit electrically coupled to the power source is met by the oscillator that drives the transmission (column 5, lines 34-44);

The claimed transmit coil electrically coupled to the at least one transmitter circuit is met by the transmit coil (column 5, lines 34-44);

The claimed receiver coil is met by the receive coil (column 5, lines 34-44);

The claimed amplifier electrically coupled to the at least one receiver coil is met by the phase shift preamp that is shown in figures 1 and 3 connected to the receiver coil;

The claimed integrator electrically coupled to the amplifier is met by the integrator (column 20, lines 31-35);

The claimed track/hold circuit electrically coupled to the integrator is met by the track and hold circuit as shown in figure 2;

The claimed filter electrically coupled to the track/hold circuit and an output is met by the filters (45 and 49) as shown in figure 1 and the speaker as shown in figure 2.

Regarding claim 2, the claimed filter is a bandpass filter is met by the bandpass filter (column 7, lines 56-58).

Regarding claim 3, the claimed transmitter circuit comprises a coil charge circuit is met by the oscillator that charges the transmit coil in order to detect a metal object (column 5, lines 34-44).

Regarding claim 7, the claim is interpreted and rejected as claim 1 stated above. The preamble does not breathe into the body of the claim and is therefore given no weight in this rejection.

Regarding claim 8, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 9, the claim is interpreted and rejected as claim 3 stated above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschi.

Regarding claim 6, it would have been obvious to one of ordinary skill in the art to use any type of power source to power the metal detector device including one in the form of a battery, battery of solar cells, standard A/C source or a generator.

Regarding claim 12, the claim is interpreted and rejected as claim 6 stated above.

6. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschi in view of Frahm et al. (Frahm; US Patent 5,521,583).

Regarding claim 4, Hirschi discloses all of the claimed limitations except for the claimed circuit comprising two receiver coils, each electrically coupled to the amplifier. Frahm discloses *Metal Detection System* that teaches using two pair of transmit/receive

coils (column 3, lines 6-24). Modifying the receiver coil of Hirschi to utilize two receiver coils would increase the functionality of the device by being able to provide the user with a separate indication for which coil detected the metal object which would help in locating the object on the person. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Hirschi according to the teachings of Frahm to utilize two receiver coils in the device.

Regarding claim 10, the claim is interpreted and rejected as claim 4 stated above.

7. Claims 13-15 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschi in view of Bybee (US Patent 6,696,947).

Regarding claim 13, Hirschi discloses the following claimed limitations:

The claimed at least one transmitter circuit electrically coupled to the power source is met by the oscillator that drives the transmission (column 5, lines 34-44);

The claimed transmit coil electrically coupled to the at least one transmitter circuit is met by the transmit coil (column 5, lines 34-44);

The claimed receiver coil is met by the receive coil (column 5, lines 34-44);

The claimed amplifier electrically coupled to the at least one receiver coil is met by the phase shift preamp that is shown in figures 1 and 3 connected to the receiver coil;

The claimed integrator electrically coupled to the amplifier is met by the integrator (column 20, lines 31-35);

The claimed track/hold circuit electrically coupled to the integrator is met by the track and hold circuit as shown in figure 2;

The claimed filter electrically coupled to the track/hold circuit and an output is met by the filters (45 and 49) as shown in figure 1 and the speaker as shown in figure 2.

However Hirschi does not specifically disclose the claimed plurality of separate sensor panels arranged in opposing pairs electrically coupled to each other and arranged one above the other along two separate sides to form two side walls and at least on top cross-member that engages each side wall. Bybee discloses *Metal Detector* that teaches a walk through metal detector with separate, electrically connected panels forming two side walls and a top as shown in figure 1 (column 5, lines 35-46). Although Hirschi is directed to a metal detector for objects in the ground, Hirschi does disclose the use of the principles of the device in other types of metal detectors, including those used for security and modifying Hirschi to be accommodated in the device of Bybee would allow the device to be utilized as a walk-through metal detection system for security purposes. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Hirschi according to the teachings of Bybee to be arranged as claimed.

Regarding claim 14, the claim is interpreted and rejected as claim 2 stated above.



Regarding claim 15, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 18, the claim is interpreted and rejected as claim 6 stated above.

Regarding claim 19, it would have been obvious to one of ordinary skill in the art to make the panels as shown in figures 1 and 21 to be interchangeable. The panels can be attached and reattached and are designed to interconnect with female and male plugs such that interchangeability would have been easily accomplished (Bybee: column 5, lines 35-46).

Regarding claim 20, the claimed at least one base coupled to each side wall is met by the base (48 and 52) of Bybee as shown in figure 1.

Regarding claim 21, the claimed base comprising at least two base members is met by the base (48 and 52) of Bybee being two members as shown in figure 1.

Regarding claim 22, it would have been obvious to one of ordinary skill in the art to use any number of panels to make up the side walls of the metal detector including 3

panels per side. The more panels per side would allow for taller persons to walk through the device.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschi in view of Bybee and further in view of Frahm.

Regarding claim 16, the claim is interpreted and rejected as claim 4 stated above.

9. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschi in view of Bybee and further in view of Fearon (US Patent 4,539,558).

Regarding claim 23, Hirschi and Bybee disclose all of the claimed limitations except for the claimed each sensor panel comprising windowed areas. Fearon discloses *Antitheft System* that teaches a pair of opposing sensor panels with windowed areas as shown in figure 1. Modifying the panels of Hirschi and Bybee to include windowed areas would give the user a better view of the subject as they walk through the metal detector and would therefore give them more information about any possible detections. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Hirschi and Bybee according to the teachings of Fearon to modify the panels to include windowed areas.

Regarding claim 24, the claimed sensor panel comprising a weather-proof construction is met by the protective core surrounding the circuitry which one of ordinary skill in the art would have considered to be 'weather-proof' (Bybee: column 3, lines 35-47).

### ***Allowable Subject Matter***

10. Claims 5, 11, 17 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Payne, *Metal Detector Systems For Identifying Targets In Mineralized Ground*,  
US Patent 4,507,612;

Parks, *Walk-Through Metal Detector*, US Patent 4,821,023;

Karbowski et al. *Walk-Through Metal Detector*, US Patent 4,906,973;

Park, *Pistol Detection System*, US Patent 5,841,346.

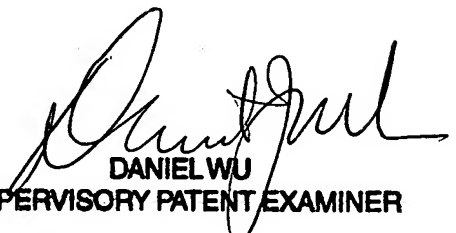
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
12/27/05